State Energy Data System CSV File Documentation

Consumption

The State Energy Data System (SEDS) comma-separated value (CSV) files contain consumption estimates shown in the tables located on the SEDS website.

There are four files that contain estimates for all states and years. Consumption in Physical Units contains the consumption estimates in physical units for all states; Consumption in Btu contains the consumption estimates in billion British thermal units (Btu) for all states. There are two data files for thermal conversion factors: the CSV file contains all of the conversion factors used to convert data between physical units and Btu for all states and the United States, and the Excel file shows the state-level conversion factors for coal and natural gas in six Excel spreadsheets. Zip files are also available for the large data files. In addition, there is a CSV file for each state, named with the two-letter U.S. Postal Code listed in Appendix A, as well as a file for the United States.

The first record in each file serves as a column heading and contains information about the data in each of the following records. Each data file record that follows begins with the state code (2 characters), followed by the data identifier (5-character mnemonic code, or MSN), followed by the 52 values for the years 1960 through 2011, with all items separated by commas. All items are enclosed in quotes, which means some systems will read numeric values as alphanumeric unless they are converted. Each file contains SEDS consumption in physical units (e.g., thousand short tons, million cubic feet, etc.) and/or in billion Btu.

Consumption estimates contained in these CSV files are rounded to whole numbers. That is, physical unit consumption is rounded to thousand short tons, million cubic feet, etc., and Btu consumption is rounded to billion Btu. Conversion factors and ratios are rounded to three decimal places. The precision does not necessarily reflect the statistical accuracy of the numbers. Users should see the sources cited in the SEDS Consumption Technical Notes for a discussion of estimation methodologies for specific data series.

The data files contain additional data series not shown in the report tables that have frequently been requested by customers. These additional data include the individual "Other Petroleum Products" used in the industrial sector, the breakout of natural gas used as lease and plant fuel, the breakout of types of jet fuel in the transportation sector, and the breakout of wood and biomass waste for each of the consuming sectors.

In addition to the cross-tabulation CSV files, there is a consolidated data file containing over 1.4 million records of the complete set of SEDS production, consumption, price, and expenditure estimates. Users can download the zip file or the CSV file for further processing.

The following appendices explain the data identification codes used in the files. Appendix A lists the state codes. Appendix B gives brief definitions of the components of the variable names. Appendix C lists the specific data series shown in the SEDS tables. Appendix D shows individual petroleum products covered under "Other Petroleum" in the consumption tables.

List of Appendices	
A	State Codes
B	Data Identification Codes (MSN)
C	List of Data Codes shown in Tables
D	Other Petroleum

The consumption estimates contained in SEDS and the methodologies used to derive them are described in the Consumption Technical Notes.

Contacts:

The State Energy Data System tables were prepared by the Integrated Energy Statistics Team of the Office of Survey Development & Statistical Integration, U.S. Energy Information Administration. Questions concerning the contents of the State Energy Data System or these files may be referred to Yvonne Taylor, 202-586-1455, or yvonne.taylor@eia.gov.

Appendix A

U.S. Postal State Codes							
Code	**Name**	**Code**	**Name**	**Code**	**Name**	**Code**	**Name**
AK	Alaska	ID	Idaho	MT	Montana	RI	Rhode Island
AL	Alabama	IL	Illinois	NE	Nebraska	SC	South Carolina
AR	Arkansas	IN	Indiana	NC	North Carolina	SD	South Dakota
AZ	Arizona	KS	Kansas	ND	North Dakota	TN	Tennessee
CA	California	KY	Kentucky	NH	New Hampshire	TX	Texas
CO	Colorado	LA	Louisiana	NJ	New Jersey	UT	Utah
CT	Connecticut	MA	Massachusetts	NM	New Mexico	VA	Virginia
DC	District of Columbia	MD	Maryland	NV	Nevada	VT	Vermont
DE	Delaware	ME	Maine	NY	New York	WA	Washington
FL	Florida	MI	Michigan	OH	Ohio	WI	Wisconsin
GA	Georgia	MN	Minnesota	OK	Oklahoma	WV	West Virginia
HI	Hawaii	MO	Missouri	OR	Oregon	WY	Wyoming
IA	Iowa	MS	Mississippi	PA	Pennsylvania	US	United States

Appendix B

The 5-letter data identifier (MSN) is a SEDS variable name defined as follows:

Data Identification Codes (MSN)	
Characters	**Identity**
1 and 2	represent an energy source
3 and 4	represent an energy consumption sector or an energy activity
5	represents a type of data

Energy Source (Characters 1 and 2)	
Code	**Name**
AB	aviation gasoline blending components
AR	asphalt and road oil
AV	aviation gasoline
BM	biomass
CC	coal coke
CL	coal
CO	crude oil, including lease condensate
DF	distillate fuel oil
DK	distillate fuel oil, including kerosene-type jet fuel
EL	electricity
EM	fuel ethanol, excluding denaturant
EN	fuel ethanol, including denaturant
ES	electricity sales
FF	fossil fuels
FN	petrochemical feedstocks, naphtha less than 401 degrees F
FO	petrochemical feedstocks, other oils equal to or greater than 401 degrees F
FS	petrochemical feedstocks, still gas
GE	geothermal energy
HY	hydroelectric power
JF	jet fuel, total

JK	kerosene-type jet fuel
JN	naphtha-type jet fuel
KS	kerosene
LG	liquefied petroleum gases
LO	electrical system energy losses
LU	lubricants
MB	motor gasoline blending components
MG	motor gasoline
MM	motor gasoline excluding fuel ethanol
MS	miscellaneous petroleum products
NA	natural gasoline (including isopentane)
NG	natural gas
NN	natural gas excluding supplemental gaseous fuels
NU	nuclear electric power
P1	asphalt and road oil, aviation gasoline, kerosene, lubricants, and "other petroleum products"
PA	all petroleum products
PC	petroleum coke
PL	plant condensate
PM	all petroleum products, excluding fuel ethanol blended into motor gasoline
PO	other petroleum products (sum of petroleum coke and 15 petroleum products)
PP	pentanes plus
RE	renewable energy
RF	residual fuel oil
SF	supplemental gaseous fuels
SG	still gas
SN	special naphthas
SO	solar thermal and photovoltaic energy
TE	total energy
TN	total net energy
UO	unfinished oils

US	unfractionated streams
WD	wood
WS	biomass waste
WW	wood and biomass waste
WX	waxes
WY	wind

The following codes represent the four end-use consuming sectors, electric power, and total energy consumption:

Energy Consumption Sectors (Characters 3 and 4)	
Code	**Name**
AC	transportation sector consumption
CC	commercial sector consumption
EI	electric power sector consumption
ET	total energy output
HC	residential and commercial sectors combined consumption
IC	industrial sector consumption
RC	residential sector consumption
TC	total consumption of all sectors
TX	total consumption of all end-use sectors

The following codes represent energy activities, other energy-consuming sectors, and derived concepts:

Energy Activities (Characters 3 and 4)	
Code	**Name**
AP	transportation sector consumption per capita
CP	commercial sector consumption per capita
EG	electricity net generation
EX	exports
IM	imports
IP	industrial sector consumption per capita
IS	interstate flow (of electricity)

KC	coke plants consumption
LP	lease and plant fuel
NI	net imports
OC	industrial consumption, excluding coke plants (for coal only)
PZ	pipeline fuel
RP	residential sector consumption per capita
TP	total consumption per capita
VH	vehicle fuel

Types (Character 5)	
Code	**Name**
B	data in billion British thermal units (Btu)

P	data in physical units:
	    petroleum - thousand barrels
	    natural gas - million cubic feet
	    coal - thousand short tons
	    electricity - million kilowatthours
	    population - thousand people

K	conversion factor:
	    petroleum - million Btu per barrel (U.S. only)
	    natural gas - thousand Btu per cubic foot
	    coal - million Btu per short ton
	    electricity - thousand Btu per kilowatthours (U.S. only)

Other SEDS variables that do not follow this convention include:

Code	**Name**
TPOPP	resident population
GDPRX	real gross domestic product
TETGR	total energy consumed per dollar of real gross domestic product

Appendix C

The following section lists the SEDS variables in the order they appear in the SEDS consumption tables. Each table column contains one variable. Variables with only four letters indicate that both physical unit and Btu values appear on the table.

Summary Tables:

Table C1 Consumption Overview: Primary Energy Source and End-Use Sectors						
TETCB	CLTCB	NNTCB	PMTCB	FFTCB	NUETB	RETCB
ELISB	ELNIB	TERCB	TECCB	TEICB	TEACB	

Table C2 Consumption for Major Energy Sources in Physical Units					
CLTCP	NGTCP	DFTCP	JFTCP	LGTCP	MGTCP
RFTCP	P1TCP	PATCP	NUETP	HYTCP	ENTCP

Table C3 Primary Energy Consumption					
CLTCB	NNTCB	DFTCB	JFTCB	LGTCB	MMTCB
RFTCB	P1TCB	PMTCB	FFTCB	NGTCB	MGTCB

Table C3 Primary Energy Consumption (Continued)						
NUETB	HYTCB	WWTCB	EMTCB	EMLCB	BMTCB	GETCB
SOTCB	WYTCB	RETCB	ELISB	ELNIB	TETCB	

Table C4 Total End-Use Consumption								
CLTXB	NGTXB	DFTXB	JFTXB	LGTXB	MGTXB	RFTXB	P1TXB	PATXB
HYTXB	WWTXB	EMLCB	GETXB	SOTXB	ESTXB	TNTXB	LOTXB	TETXB

Table C5 Residential Sector Consumption						
CLRCB	NGRCB	DFRCB	KSRCB	LGRCB	PARCB	WDRCB
GERCB	SOHCB	ESRCB	TNRCB	LORCB	TERCB	

Table C6 Commercial Sector Consumption

CLCCB	NGCCB	DFCCB	KSCCB	LGCCB	MGCCB	RFCCB	PACCB
HYCCB	WWCCB	GECCB	ESCCB	TNCCB	LOCCB	TECCB	

Table C7 Industrial Sector Consumption

CLICB	NGICB	DFICB	LGICB	MGICB	RFICB	P1ICB	PAICB
HYICB	WWICB	EMLCB	GEICB	ESICB	TNICB	LOICB	TEICB

Table C8 Transportation Sector Consumption

CLACB	NGACB	AVACB	DFACB	JFACB	LGACB	LUACB
MGACB	RFACB	PAACB	ESACB	TNACB	LOACB	TEACB

Table C9 Electric Power Sector Consumption

CLEIB	NGEIB	RFEIB	DKEIB	PCEIB	PAEIB	NUEGB
HYEGB	WWEIB	GEEGB	SOEGB	WYEGB	ELNIB	TEEIB

Ranking Tables:

Table C10 Consumption by End-Use Sector

TERCB	TECCB	TEICB	TEACB	TETCB

Table C11 Consumption by Source

CLTCB	NGTCB	PATCB	ESTCB

Table C12 Consumption, GDP, and Energy Intensity

TETCB	GDPRX	TETGR

Table C13 Consumption per Capita by End-Use Sector

TERPB	TECPB	TEIPB	TEAPB	TETPB

Time Series Tables:

US Table CT1 Consumption in Physical Units						
CLTCP	CCNIP	NGTCP	DFTCP	JFTCP	LGTCP	MGTCP
RFTCP	P1TCP	PATCP	NUETP	HYTCP	ENTCP	

US Table CT2 Primary Energy Consumption						
CLTCB	CCNIB	NNTCB	DFTCB	JFTCB	LGTCB	MMTCB
RFTCB	P1TCB	PMTCB	FFTCB	NGTCB	MGTCB	

US Table CT2 Primary Energy Consumption (Continued)					
NUETB	HYTCB	WWTCB	EMTCB	EMLCB	BMTCB
GETCB	SOTCB	WYTCB	RETCB	ELNIB	TETCB

US Table CT3 Total End-Use Consumption									
CLTX	CCNI	NGTX	DFTX	JFTX	LGTX	MGTX	RFTX	P1TX	PATX
HYTX	WWTX	EMLC	GETX	SOTX	ESTX	TNTX	LOTZ	TETX	

US Table CT4 Residential Sector Consumption						
CLRC	NGRC	DFRC	KSRC	LGRC	PARC	WDRC
GERC	SOHC	ESRC	TNRC	LORC	TERC	

US Table CT5 Commercial Sector Consumption							
CLCC	NGCC	DFCC	KSCC	LGCC	MGCC	RFCC	PACC
HYCC	WWCC	GECC	ESCC	TNCC	LOCC	TECC	

US Table CT6 Industrial Sector Consumption								
CLIC	CCNI	NGIC	DFIC	LGIC	MGIC	RFIC	P1IC	PAIC
HYIC	WWIC	EMLC	GEIC	ESIC	TNIC	LOIC	TEIC	

US Table CT7 Transportation Sector Consumption

CLAC	NGAC	AVAC	DFAC	JFAC	LGAC	LUAC
MGAC	RFAC	PAAC	ESAC	TNAC	LOAC	TEAC

US Table CT8 Electric Power Sector Consumption

CLEI	NGEI	RFEI	DKEI	PCEI	PAEI	NUEG
HYEG	WWEI	GEEG	SOEG	WYEG	ELNI	TEEI

State Table CT1 Consumption in Physical Units

CLTCP	NGTCP	DFTCP	JFTCP	LGTCP	MGTCP
RFTCP	P1TCP	PATCP	NUETP	HYTCP	ENTCP

State Table CT2 Primary Energy Consumption

CLTCB	NNTCB	DFTCB	JFTCB	LGTCB	MMTCB
RFTCB	P1TCB	PMTCB	FFTCB	NGTCB	MGTCB

State Table CT2 Primary Energy Consumption (Continued)

NUETB	HYTCB	WWTCB	EMTCB	EMLCB	BMTCB	GETCB
SOTCB	WYTCB	RETCB	ELISB	ELNIB	TETCB	

State Table CT3 Total End-Use Consumption

CLTX	CCNI	NGTX	DFTX	JFTX	LGTX	MGTX	RFTX	P1TX	PATX
HYTX	WWTX	EMLC	GETX	SOTX	ESTX	TNTX	LOTX	TETX	

State Table CT4 Residential Sector Consumption

CLRC	NGRC	DFRC	KSRC	LGRC	PARC	WDRC
GERC	SOHC	ESRC	TNRC	LORC	TERC	

State Table CT5 Commercial Sector Consumption

CLCC	NGCC	DFCC	KSCC	LGCC	MGCC	RFCC	PACC
HYCC	WWCC	GECC	ESCC	TNCC	LOCC	TECC	

State Table CT6 Industrial Sector Consumption							
CLIC	NGIC	DFIC	LGIC	MGIC	RFIC	P1IC	PAIC
HYIC	WWIC	EMLC	GEIC	ESIC	TNIC	LOIC	TEIC

State Table CT7 Transportation Sector Consumption							
CLAC	NGAC	AVAC	DFAC	JFAC	LGAC	LUAC	MGAC
RFAC	PAAC	ENAC	ESAC	TNAC	LOAC	TEAC	

State Table CT8 Electric Power Sector Consumption						
CLEI	NGEI	RFEI	DKEI	PCEI	PAEI	NUEG
HYEG	WWEG	GEEG	SOEG	WYEG	ELNI	TEEI

Appendix Tables:

Table B1					
LGICKUS	LGTCKUS	MGTCKUS	PATCKUS	FFETKUS	NUETKUS

Tables B2, B3: NGEIK

Tables B4, B5: NGTXK

Tables B6, B7: NGTCK

Tables B8, B9: CLHCK

Tables B10, B11: CLOCK

Tables B12, B13: CLEIK

Tables C1-C5: TPOPP

Tables D1-D4: GDPRX

Appendix D

In the Total Energy, Total End-use, and Industrial Sector tables, "Other Petroleum" includes asphalt and road oil, aviation gasoline, kerosene, lubricants, and "other petroleum products" as described in Section 4 of the Consumption Technical Notes. Data for the detailed products are available in the CSV file.

The following lists the components of "Other Petroleum," the fifth character is either "P" for physical units, or "B" for Btu.

Components of P1TC
ARTC
AVTC
KSTC
LUTC
POTC, which includes:
ABTC
COTC
FNTC
FOTC
FSTC
MBTC
MSTC
NATC
PCTC
PLTC
PPTC
SGTC
SNTC
UOTC
USTC
WXTC

Components of P1TX
ARTX
AVTX
KSTX
LUTX
POTX, which includes:
ABTX
COTX
FNTX
FOTX
FSTX
MBTX
MSTX
NATX
PCTX
PLTX
PPTX
SGTX
SNTX
UOTX
USTX
WXTX

Components of P1IC
ARIC
KSIC
LUIC
POIC, which includes:
ABIC

COIC
FNIC
FOIC
FSIC
MBIC
MSIC
NAIC
PCIC
PLIC
PPIC
SGIC
SNIC
UOIC
USIC
WXIC